REMARKS

This application has been carefully reviewed in light of the final Office Action dated November 18, 2010. Claims 1, 10, 11, and 26 are in the application, with Claim 1 being independent. Reconsideration and further examination are respectfully requested.

Claim 26 was rejected under 35 U.S.C. § 112, first paragraph, for alleged failure to comply with the written description requirement. This rejection is traversed, and is submitted to have been obviated by the amendments made herein.

Claims 1, 10 and 26 were rejected under 35 U.S.C. § 103(a) over Biosensors and Bioelectronics, vol. 18, pp. 1455-1459 (Sheehan) in view of U.S. Publication No. 2004/0081969 (Ilsley), or over Sheehan in view of Ilsley and further in view of U.S. Publication No. 2005/0153318 (Schena). Claim 11 was rejected under 35 U.S.C. § 103(a) over Sheehan in view of Ilsley and further in view of U.S. Publication No. 2004/0009512 (Ares), or over Sheehan in view of Ilsley and Schena and further in view of Ares. These rejections are respectfully traversed.

Independent Claim 1 as amended generally concerns a probe carrier for simultaneous quantification of two or more genes in a solution. The probe carrier has a surface on which probes capable of specifically binding to respective ones of the genes are immobilized at known locations. In addition, two or more same size areas containing respective ones of the probes exist as separated spots on the probe carrier, and each of the spots was formed by ejecting a corresponding probe solution such that the respective probe solutions have the same concentration and the respective spots have a uniform diameter. Further, at least two spots of the same probe are arranged in each of the areas, and the number of spots for the genes differs depending on the genes.

Thus, among its many features, Claim 1 provides that two or more same size areas containing respective ones of the probes exist as separated spots on the probe carrier, at least two spots of the same probe are arranged in each of the areas, and the number of spots for the genes differs depending on the genes. See, e.g., type (A) mentioned at page 14, lines 7 to 9 of the instant specification.

By virtue of the foregoing features, because the areas of the probe carrier are the same size, it is possible to easily perform quantification of respective genes in a unified manner. More specifically, respective genes can be quantified, for instance, by simply detecting the overall intensity of luminescence of each area by means of an area sensor with low resolution.

Naturally, the embodiments depicted in the specification do not limit the scope of the claims. Rather, the embodiments are merely examples of arrangements falling within their scope.

None of Sheehan, Ilsley, Schena, and Ares, even in the proposed combinations, assuming, *arguendo*, that such could be combined, is seen to disclose or suggest at least the foregoing features of Claim 1, or the attendant benefits provided thereby.

Sheehan is seen to disclose a standard probe as a single-stranded DNA (ssDNA) oligomer about 30 nucleotides long and thiolated at the 3´-end for attachment to a gold surface. See section 2.2 of Sheehan. Sheehan is further seen to disclose four different deposite ssDNA probes with positive controls at the left and right, and two spots each. See Figure 2 of Sheehan. However, Sheehan is not seen to disclose or suggest the foregoing features of Claim 1, or the attendant benefits provided thereby.

Ilsley is not seen to remedy the above-mentioned deficiencies of Sheehan. In this regard, Ilsley is seen to disclose that subject sample evaluation devices may include a single pattern of spots or may include a plurality of different spot patterns. See paragraph [0068] of Ilsley. However, Ilsley is not seen to disclose or suggest the foregoing features of Claim 1, or the attendant benefits provided thereby.

Schena and Ares have been reviewed but are not seen to remedy the above-described deficiencies of Sheehan and Ilsley. Schena is merely seen to disclose triple spotting. See, e.g., paragraph [0022] of Schena. Ares is merely seen to disclose an array including at least one set of nucleic acid probes for detection of gene products that are produced by mRNA splicing of a selected gene. However, neither Schena nor Ares is seen to add anything that, when combined with Sheehan and/or Ilsley, assuming, *arguendo*, that such could be combined, would have resulted in the foregoing features of Claim 1, or the attendant benefits provided thereby.

Accordingly, Claim 1 is believed to be in condition for allowance, and such action is respectfully requested.

The other pending claims in this application are each dependent from the independent claim discussed above and are therefore believed allowable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the claims, however, the individual consideration of each dependent claim on its own merits is respectfully requested.

No other matters being raised, the entire application is believed to be in condition for allowance, and such action is respectfully requested.

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